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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,819	03/06/2002	Katsuhiro Ishii	Q68804	5697

23373 7590 04/20/2005

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EXAMINER	
NGUYEN, THUAN T	
ART UNIT	**PAPER NUMBER**
2685	

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/090,819	ISHII, KATSUHIRO	
	Examiner	Art Unit	
	THUAN T. NGUYEN	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-7 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-7 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 06 March 2002 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date attached.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Information Disclosure Statement

2. The information disclosure statements filed on 10/9/02, 12/31/03, and 4/7/04 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered.

Only one IDS filed on 3/6/02 complies with 37 CFR 1.98(a)(1), and it has been considered by the examiner.

Claim Rejections - 35 USC 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> *A person shall be entitled to a patent unless --*
>
> *(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.*

4. Claims 1-3, and 5-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamamoto (U.S. Patent 6,297,694 B1).

Regarding claim 1, this limitation is met by Yamamoto as Yamamoto discloses a transmitting circuit using plural transmission frequency band, i.e,, GSM 900 and DCS 1800 and a communication terminal unit comprising the transmitting circuit with an antenna and its other components (Fig. 1, and col. 4/line 50 to col. 5/line 41) comprising an input stage amplifier for amplifying an input signal and an operating condition setting circuit for controlling an optimally amplified frequency band by setting an operating condition of the input stage amplifier as well as a high pass filter and a low pass filter connected to an output of the input stage amplifier for amplifying a signal of frequency band passed by the high-pass filter and the low pass filter correspondingly, i.e., Figure 1 & 4 shows a same concept for a high frequency power amplifier for use within the mobile phone, as stated in col. 1/lines 13-62 for background on DCS 1800 and GSM 900, and with a first biasing circuit 3 and a second bias circuit 5 under the control of a bias

switching circuit 6 in controlling the operating condition of the input stage amplifier of Figure 1 through input IN1 and IN2 for different frequency bands GSM 900 and DCS 1800 using a high pass filter, a low pass filter, a high frequency band last stage amplifier for amplifying the signal of frequency band passed by the high pass filter together with a low frequency band last stage amplifier for amplifying the signal of frequency band passed by the low pass filter (col. 5/lines 1-41, Fig. 2 and col. 5/line 41 to col. 7/line 23 for detailed operation of the biasing circuits).

As for claim 2, this limitation is met as Yamamoto shows to include transistors and setting a bias voltage of the transistors (HBT or heterojunction bipolar transistor is used, col. 2/line 45-col. 3/line 5, and col. 3/lines 5-28 for bias voltage addressed using voltage control technique).

As for claim 3, this limitation is met as Yamamoto discloses to have dual band for GSM 900 and DCS 1800 frequency bands (Figs. 1 & 4, and col. 4/lines 52-67).

As for claims 5 and 6, these limitations are met as Yamamoto shows wherein all the amplifiers and filters are formed on same semiconductor die and wherein each of the amplifiers is produced by GaAs process (col. 1/lines 12-28).

Claim Rejections - 35 USC 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> *(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

6. Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto as in claim 1 above in view of Dent et al (US Pub No. 2002/0101907 A1).

Regarding claim 4, Yamamoto does not address that the communication device including "class C amplifier"; however, in a same field of providing multi-band communication, Dent teaches a same technique of using class C amplifier (Dent, Figs. 1, 4-5, and page 3/section 0033; and page 6/section 0057 for class C amplifier). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yamamoto's technique with Dent's technique of using class C amplifier in order to adapt to mismatch power level within the communication device, and Dent offers the adjustable matching network as disclosed for preserve the power amplifier linearity (Dent, page 6, section 0057).

As for claim 7, Yamamoto does not further show components of the mobile phone comprising an antenna, a transmitting, and a modulating/demodulating circuit; however, these features are known elements within a mobile communication device. In fact, Dent shows the mobile device comprises these claimed features (Figs. 2, 4 & 5, and page 4,

par. 0042 to page 5, par. 0048). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yamamoto's technique with Dent's known features of components within the mobile phone, and then applying Yamamoto's apparatus and method of high frequency power amplifier as discussed in claim 1 above.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Ishida et al and Masato (PTO 892 attached) disclose systems related to multiple frequency receiving circuit and amplifier technique.

8. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for Technology Center 2600 only)

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (703) 308-5860. The examiner can normally be reached on Monday-Friday from 9:30 AM to 7:00 PM, with alternate Fridays off.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TONY T. NGUYEN
PATENT EXAMINER

Tony T. Nguyen
Art Unit 2685
April 13, 2005